

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant: Milovanovic

Art Unit: 2614

Serial No.: 09/923,232

Confirmation No.: 9094

Filed: August 3, 2001

Examiner: Hoang-Vu A. Nguyen-Ba

Docket: TI-32647

For: SYSTEM AND METHOD FOR REAL-TIME NON-PARTICIPATORY USER  
RECOGNITION AND CONTENT PROVISIONING

**Appeal Brief under 37 C.F.R. §41.37**

Board of Patent Appeals and Interferences

United States Patent and Trademark Office

P.O. Box 1450

Alexandria, VA 22313-1450

Dear Sir:

This is Appellant's Appeal Brief filed pursuant to 37 C.F.R. §41.37 and the Notice of Appeal filed July 7, 2008. This response is timely under 37 C.F.R. §1.7 because September 7, 2008 is a Sunday and the transmittal date of this response under 37 C.F.R. §1.8 is the next following day that is not a Saturday, Sunday or Federal Holiday.

## **TABLE OF CONTENTS**

<u>Section</u>	<u>Page</u>
Real Party in interest	3
Related Appeals and Interferences	3
Status of Claims	3
Status of Amendments Filed After Final Rejection	3
Summary of Claimed Subject Matter	3
Grounds for Rejection to be Reviewed on Appeal	13
Arguments	14
Claims Appendix	24
Evidence Appendix	29
Related Proceedings Appendix	30

**Real Party in Interest**

The real party in interest in this application is Texas Instruments Incorporated, a corporation of Delaware with its principle place of business in Dallas, Texas. An assignment to Texas Instruments Incorporated is recorded at reel 012081 and frames 0689 to 0691.

**Related Appeals and Interferences**

There are no appeals of interferences related to this appeal in this application.

**Status of the Claims**

Claims 1, 10, 12, 29, 34, 46, 49, 52 and 55 to 58 are rejected and subject to this appeal. Claims 2 to 9, 11, 13 to 28, 30 to 33, 35 to 45, 47, 48, 50, 51, 53 and 54 are canceled. No claims are allowed.

**Status of Amendments Filed After Final Rejection**

No amendments to the claims were proposed following the FINAL REJECTION of January 7, 2008.

**Summary of Claimed Subject Matter**

The subject matter of independent claims 1, 10, 12, 29, 34, 46, 49 and 52 of this application is taught in the application as follows:

Claim 1	Specification and Drawings
1. A system for user recognition and customized content provisioning, the system comprising:	system: 10; page 3, lines 2 to 5; page 6, lines 15 to 18.

<p>a remote control device having a plurality of control keys, the remote control device including a fingerprint sensor embedded in one of said control keys, whereby activation of said one of said control keys reads fingerprint data of a user's finger, said control keys including at least some control keys disposed in a thumb actuated cross configuration, and wherein said fingerprint sensor is integrated within a middle portion of the thumb operated cross configuration; and</p>	<p>data acquisition device: 12; page 6, line 16 to page 7, line 13.</p> <p>remote control device: 41; page 11, line 6 to page 12, line 4.</p> <p>plurality of control keys: page 11, lines 11 and 12; up/down keys 43; page 11, lines 13 and 14; and channel up/down keys 45; page 11, line 14.</p> <p>fingerprint sensor: 26; page 6, lines 11 and 12; page 9, lines 11 to 13 and lines 22 and 23; page 10, lines 15 to 18; page 11, lines 1 to 5.</p> <p>embedded in one of said control keys: page 11, lines 13 to 16.</p> <p>thumb activated cross configuration: page 11, lines 13 to 15.</p> <p>fingerprint sensor in middle position: page 11, lines 15 and 16.</p>
<p>an apparatus capable of presenting customized content to the user controllable by activation of said plurality of control keys, the customized content selected dependent upon said fingerprint data of the user's finger.</p>	<p>apparatus: 20; page 8, line 18 to page 9, line 5; Figure 6; page 12, line 21 to page 14, line 3;</p> <p>controllable by activation of said plurality of control keys: page 11, lines 9 to 12.</p> <p>selected dependent upon fingerprint data: page 3, lines 13 to 15; page 7, line 12 to page 8, line 4; page 13, lines 3 to 8.</p>

Claim 10	Specification and Drawings
<p>10. An apparatus for content provisioning comprising:</p>	<p>apparatus: 10; page 3, lines 2 to 5; page 6, lines 15 to 18.</p>

<p>means for acquiring data related to a user without active user input or participation, the means for acquiring data including a remote control device having a plurality of control keys and a fingerprint sensor embedded in one of the control keys, whereby activation of said one of said control keys reads fingerprint data of a user's finger, said control keys including at least some control keys disposed in a thumb actuated cross configuration, and said fingerprint sensor is integrated within a middle portion of the thumb operated cross configuration; and</p>	<p>means for acquiring data: 12; page 6, line 16 to page 7, line 13.</p> <p>remote control device: 41; page 11, line 6 to page 12, line 4.</p> <p>plural control keys: page 11, lines 11 and 12; up/down keys 43; page 11, lines 13 and 14; and channel up/down keys 45; page 11, line 14.</p> <p>fingerprint sensor: 26; page 6, lines 11 and 12; page 9, lines 11 to 13 and lines 22 and 23; page 10, lines 15 to 18; page 11, lines 1 to 5.</p> <p>embedded in one of said control keys: page 11, lines 13 to 16.</p> <p>thumb activated cross configuration: page 11, lines 13 to 15.</p> <p>fingerprint sensor in middle position: page 11, lines 15 and 16.</p>
<p>means for presenting customized content to the user controllable by activation of said plurality of control keys, said customized content selected in response to said fingerprint data of the user's finger.</p>	<p>means for presenting: 20; page 8, line 18 to page 9, line 5; Figure 6; page 12, line 21 to page 14, line 3;</p> <p>controllable by activation of said plurality of control keys: page 11, lines 9 to 12.</p> <p>selected in response to said fingerprint data: page 3, lines 13 to 15; page 7, line 12 to page 8, line 4; page 13, lines 3 to 8.</p>

Claim 12	Specification and Drawings
<p>12. A television system comprising:</p>	<p>television system: 10; page 3, lines 2 to 5; page 6, lines 15 to 18.</p>

<p>a remote control device having a plurality of control keys, the remote control device including a fingerprint sensor embedded in one of said control keys, whereby activation of said one of said control keys reads fingerprint data of a user's finger, said control keys including at least some control keys disposed in a thumb actuated cross configuration, and said fingerprint sensor is integrated within a middle portion of the thumb operated cross configuration;</p>	<p>means for acquiring data: 12; page 6, line 16 to page 7, line 13.</p> <p>remote control device: 41; page 11, line 6 to page 12, line 4.</p> <p>plural control keys: page 11, lines 11 and 12; up/down keys 43; page 11, lines 13 and 14; and channel up/down keys 45; page 11, line 14.</p> <p>fingerprint sensor: 26; page 6, lines 11 and 12; page 9, lines 11 to 13 and lines 22 and 23; page 10, lines 15 to 18; page 11, lines 1 to 5.</p> <p>embedded in one of said control keys: page 11, lines 13 to 16.</p> <p>thumb activated cross configuration: page 11, lines 13 to 15.</p> <p>fingerprint sensor in middle position: page 11, lines 15 and 16.</p>
<p>a processor communicatively coupled to the remote control device, the determining characteristics of the user based upon the fingerprint data; and</p>	<p>processor: general purpose processor 34; page 10, lines 6 to 8; digital signal processor 36; page 10, lines 6 to 10.</p> <p>determining characteristics of the user: Figure 3; page 10, lines 1 to 3; digital signal processor 36; page 10, lines 9 and 10</p>
<p>a display providing content to be viewed by the user, the content being customized for the user based upon the characteristics determined by the processor.</p>	<p>display: 16; page 6, line 18; page 8, line 2 to 9.</p> <p>content customized for the user: page 7, line 21 to page 8, line 4</p>

Claim 29	Specification and Drawings
29. A remote control device comprising:	remote control device: 41; page 11, line 6 to page 12, line 4.
a housing;	housing: 47; page 11, lines 8 and 9

electronic circuitry disposed within the housing;	electronic circuitry: page 11, lines 8 and 9
a signal transmitter disposed within the housing;	signal transmitter: 49; page 11, lines 9 to 11
a plurality of control keys disposed on an outer surface of the housing, at least some of the control keys operable by hand and at least some control keys disposed in a thumb actuated cross configuration; and	plurality of control keys: page 11, lines 11 and 12; up/down keys 43; page 11, lines 13 and 14; and channel up/down keys 45; page 11, line 14. thumb actuated cross configuration: up/down keys 43; channel up/down keys 45; page 11, lines 11 to 16.
a fingerprint sensor integrated within a middle portion of the thumb operated cross configuration control keys.	fingerprint sensor in middle position: page 11, lines 15 and 16.

Claim 34	Specification and Drawings
34. A device comprising:	device: 41; page 11, line 6 to page 12, line 4.
a housing;	housing: 47; page 11, lines 8 and 9
electronic circuitry disposed within the housing;	electronic circuitry: page 11, lines 8 and 9
a signal transmitter disposed within the housing;	signal transmitter: 49; page 11, lines 9 to 11
a plurality of control keys disposed on an outer surface of the housing, at least some of the control keys operable by hand, the control keys including an activation key operable to activate a remote control device; and	plurality of control keys: page 11, lines 11 and 12; up/down keys 43; page 11, lines 13 and 14; and channel up/down keys 45; page 11, line 14. activation key: page 11, line 21 to page 12, line 1.
a fingerprint sensor integrated within the activation key.	fingerprint sensor integrated with activation key: page 11, line 21 to page 12, line 1.

Claim 46	Specification and Drawings
46. A system for user recognition and customized content provisioning, the system comprising:	system: 10; page 3, lines 2 to 5; page 6, lines 15 to 18.
a remote control device having a plurality of control keys, the remote control device including a fingerprint sensor embedded in one of said control keys, whereby activation of said one of said control keys reads fingerprint data of a user's finger, said control keys include an activation key operable to activate the remote control device, and said fingerprint sensor is embedded in the activation key; and	data acquisition device: 12; page 6, line 16 to page 7, line 13. remote control device: 41; page 11, line 6 to page 12, line 4. plurality of control keys: page 11, lines 11 and 12; up/down keys 43; page 11, lines 13 and 14; and channel up/down keys 45; page 11, line 14. fingerprint sensor: 26; page 6, lines 11 and 12; page 9, lines 11 to 13 and lines 22 and 23; page 10, lines 15 to 18; page 11, lines 1 to 5. embedded in one of said control keys: page 11, lines 13 to 16. fingerprint sensor embedded in the activation key: page 11, line 21 to page 12, line 1.
an apparatus capable of presenting customized content to the user controllable by activation of said plurality of control keys, the customized content selected dependent upon said fingerprint data of the user's finger.	apparatus: 20; page 8, line 18 to page 9, line 5; Figure 6; page 12, line 21 to page 14, line 3; controllable by activation of said plurality of control keys: page 11, lines 9 to 12. selected dependent upon fingerprint data: page 3, lines 13 to 15; page 7, line 12 to page 8, line 4; page 13, lines 3 to 8.

Claim 49	Specification and Drawings
49. An apparatus for content provisioning comprising:	apparatus: 10; page 3, lines 2 to 5; page 6, lines 15 to 18.



<p>means for acquiring data related to a user without active user input or participation, the means for acquiring data including a remote control device having a plurality of control keys and a fingerprint sensor embedded in one of the control keys, whereby activation of said one of said control keys reads fingerprint data of a user's finger, said control keys include an activation key operable to activate the remote control device, and said fingerprint sensor is embedded in the activation key; and</p>	<p>means for acquiring data: 12; page 6, line 16 to page 7, line 13.</p> <p>remote control device: 41; page 11, line 6 to page 12, line 4.</p> <p>plural control keys: page 11, lines 11 and 12; up/down keys 43; page 11, lines 13 and 14; and channel up/down keys 45; page 11, line 14.</p> <p>fingerprint sensor: 26; page 6, lines 11 and 12; page 9, lines 11 to 13 and lines 22 and 23; page 10, lines 15 to 18; page 11, lines 1 to 5.</p> <p>embedded in one of said control keys: page 11, lines 13 to 16.</p> <p>fingerprint sensor embedded in the activation key: page 11, line 21 to page 12, line 1.</p>
<p>means for presenting customized content to the user controllable by activation of said plurality of control keys, said customized content selected in response to said fingerprint data of the user's finger.</p>	<p>means for presenting: 20; page 8, line 18 to page 9, line 5; Figure 6; page 12, line 21 to page 14, line 3;</p> <p>controllable by activation of said plurality of control keys: page 11, lines 9 to 12.</p> <p>selected in response to said fingerprint data: page 3, lines 13 to 15; page 7, line 12 to page 8, line 4; page 13, lines 3 to 8.</p>

Claim 52	Specification and Drawings
<p>52. A television system comprising:</p>	<p>television system: 10; page 3, lines 2 to 5; page 6, lines 15 to 18.</p>

<p>a remote control device having a plurality of control keys, the remote control device including a fingerprint sensor embedded in one of said control keys, whereby activation of said one of said control keys reads fingerprint data of a user's finger, said control keys include an activation key operable to activate the remote control device, and said fingerprint sensor is embedded in the activation key;</p>	<p>remote control device: 41; page 11, line 6 to page 12, line 4.  plural control keys: page 11, lines 11 and 12; up/down keys 43; page 11, lines 13 and 14; and channel up/down keys 45; page 11, line 14.  fingerprint sensor: 26; page 6, lines 11 and 12; page 9, lines 11 to 13 and lines 22 and 23; page 10, lines 15 to 18; page 11, lines 1 to 5.  embedded in one of said control keys: page 11, lines 13 to 16.  fingerprint sensor embedded in the activation key: page 11, line 21 to page 12, line 1.</p>
<p>a processor communicatively coupled to the remote control device, the determining characteristics of the user based upon the fingerprint data; and</p>	<p>processor: general purpose processor 34; page 10, lines 6 to 8; digital signal processor 36; page 10, lines 6 to 10.  determining characteristics of the user: Figure 3; page 10, lines 1 to 3; digital signal processor 36; page 10, lines 9 and 10</p>
<p>a display providing content to be viewed by the user, the content being customized for the user based upon the characteristics determined by the processor.</p>	<p>display: 16; page 6, line 18; page 8, line 2 to 9.  content customized for the user: page 7, line 21 to page 8, line 4</p>

Independent claims 10, 49 and separately argued dependent claim 57 recite means plus function limitations. The structure, material, or acts described in the specification corresponding to each claimed function is as follows:

Claim 10	Specification and Drawings
<p>means for acquiring data related to a user without active user input or participation, the means for acquiring data including a remote control device having a plurality of control keys and a fingerprint sensor embedded in one of the control keys, whereby activation of said one of said control keys reads fingerprint data of a user's finger, said control keys including at least some control keys disposed in a thumb actuated cross configuration, and said fingerprint sensor is integrated within a middle portion of the thumb operated cross configuration; and</p>	<p>means for acquiring data: 12; page 6, line 16 to page 7, line 13.</p> <p>remote control device: 41; page 11, line 6 to page 12, line 4.</p> <p>plural control keys: page 11, lines 11 and 12; up/down keys 43; page 11, lines 13 and 14; and channel up/down keys 45; page 11, line 14.</p> <p>fingerprint sensor: 26; page 6, lines 11 and 12; page 9, lines 11 to 13 and lines 22 and 23; page 10, lines 15 to 18; page 11, lines 1 to 5.</p> <p>embedded in one of said control keys: page 11, lines 13 to 16.</p> <p>thumb activated cross configuration: page 11, lines 13 to 15.</p> <p>fingerprint sensor in middle position: page 11, lines 15 and 16.</p>
<p>means for presenting customized content to the user controllable by activation of said plurality of control keys, said customized content selected in response to said fingerprint data of the user's finger.</p>	<p>means for presenting: 20; page 8, line 18 to page 9, line 5; Figure 6; page 12, line 21 to page 14, line 3;</p> <p>controllable by activation of said plurality of control keys: page 11, lines 9 to 12.</p> <p>selected in response to said fingerprint data: page 3, lines 13 to 15; page 7, line 12 to page 8, line 4; page 13, lines 3 to 8.</p>

Claim 49	Specification and Drawings
means for acquiring data related to a user without active user input or participation, the means for acquiring data including a remote control device having a plurality of control keys and a fingerprint sensor embedded in one of the control keys, whereby activation of said one of said control keys reads fingerprint data of a user's finger, said control keys include an activation key operable to activate the remote control device, and said fingerprint sensor is embedded in the activation key; and	means for acquiring data: 12; page 6, line 16 to page 7, line 13. remote control device: 41; page 11, line 6 to page 12, line 4. plural control keys: page 11, lines 11 and 12; up/down keys 43; page 11, lines 13 and 14; and channel up/down keys 45; page 11, line 14. fingerprint sensor: 26; page 6, lines 11 and 12; page 9, lines 11 to 13 and lines 22 and 23; page 10, lines 15 to 18; page 11, lines 1 to 5. embedded in one of said control keys: page 11, lines 13 to 16. fingerprint sensor embedded in the activation key: page 11, line 21 to page 12, line 1.
means for presenting customized content to the user controllable by activation of said plurality of control keys, said customized content selected in response to said fingerprint data of the user's finger.	means for presenting: 20; page 8, line 18 to page 9, line 5; Figure 6; page 12, line 21 to page 14, line 3; controllable by activation of said plurality of control keys: page 11, lines 9 to 12. selected in response to said fingerprint data: page 3, lines 13 to 15; page 7, line 12 to page 8, line 4; page 13, lines 3 to 8.
Claim 57	Specification and Drawings
said mean for acquiring data is operable to	means for acquiring data: 12; page 6, line 16 to page 7, line 13; 41; page 11, line 6 to page 12, line 4.

enter a sleep mode and forget fingerprint sensor data if none of said plurality of control keys is operated for a predetermined period of time, and	enter sleep mode: page 12, lines 1 to 4
re-activate from said sleep mode upon operation of said activation key and re-acquiring fingerprint data via said fingerprint sensor.	re-activate: page 11, line 21 to page 12, line 1

#### **Grounds for Rejection to be Reviewed on Appeal**

Claims 1, 10, 12, 29, 34, 46, 49 and 52 were rejected under 35 U.S.C. 103(a) as made obvious by the combination of Merjanian U.S. Patent No. 5,920,642 and Darbee et al U.S. Patent No. 6,130,726.

Claims 55 to 58 were rejected under 35 U.S.C. 103(a) as made obvious by the combination of Merjanian U.S. Patent No. 5,920,642, Darbee et al U.S. Patent No. 6,130,726 and Catalano et al U.S. Patent No. 6,766,040.

## Arguments

### FIRST REJECTION

Claims 1, 10, 12, 29, 34, 46, 49 and 52 were rejected under 35 U.S.C. 103(a) as made obvious by the combination of Merjanian U.S. Patent No. 5,920,642 and Darbee et al U.S. Patent No. 6,130,726.

#### Claims 1, 10, 12 and 29

Claims 1, 10, 12 and 29 recite subject matter not made obvious by the combination of Merjanian and Darbee et al. Claims 1, 10, 12 and 29 recite "some control keys disposed in a thumb actuated cross configuration" and "the fingerprint sensor is integrated within a middle portion of the thumb operated cross configuration." The FINAL REJECTION admits that Merjanian does not disclose this limitation but cites Darbee et al as teaching the recited thumb actuated cross configuration. The FINAL REJECTION fails to provide any motivation for incorporating the fingerprint sensor of Merjanian into the OK key of Darbee et al. In contrast, this application states at page 11, lines 13 to 17:

"The illustrated embodiment has an arrangement in which the volume up/down keys 43 and channel up/down keys 45 are positioned in a thumb operated cross 40, with the finger print apparatus 26 located in the middle of the cross 40. This arrangement allows non-participatory identification of the user by analyzing the user's thumbprint when the user changes channels or the volume."

This application also provides clear teaching of the advantage of such "non-participatory identification of the user." There is no teaching in either reference that such a combination is feasible or advantageous. Note that Merjanian illustrates in Figure 7 platen 30 exposed to the user's digit and a set of keys 212H, 212I, 212J

and 212K disposed in a cross configuration omitting the claimed middle portion. Darbee et al teaches a keyboard 15 including a cross configuration of keys with a middle OK key. Darbee et al also discloses at column 4, lines 5 to 11 a fingerprint recognition device. Accordingly, both references teach the essential parts of these claims. However, neither reference includes any teaching that a fingerprint sensor can be used with a middle portion of a set of thumb actuated control keys in a cross configuration. Accordingly, claims 1, 10, 12 and 29 are allowable over the combination of Merjanian and Darbee et al.

The FINAL REJECTION states at page 11, lines 12 to 12; page 12, lines 19 to 24; page 13, lines 19 to 24; page 14, lines 16 to 22; page 15, lines 18 to 23; page 16, lines 17 to 22; page 17, lines 18 to 24; and page 18, line 21 to page 19 line 3:

"Because of the nature of the downloaded materials that depend upon the identification of the user, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to integrate the fingerprint sensor of Merjanian within the OK or PPV control key as this would enable or activate the remote controller to download the materials subsequent to a successful validation of the id of the user, thereby providing the right materials to the right user."

The Applicant respectfully submits this argument fails to show that the combination of Merjanian and Darbee et al makes obvious this limitation of claims 1, 10, 12 and 29. Neither reference explicitly teaches the combination of fingerprint sensor and a middle portion of the thumb operated cross configuration as recited in the claims. Both references include control buttons in a cross configuration (Merjanian Figure 7, buttons 212H, 212I, 212J and 212K omitting the recited middle portion; Darbee et al Figure 1, arrow buttons and OK button). Both references include fingerprint sensors (Merjanian, Figure 7, 3; Darbee et al at column 4, lines 5 to 11). Further,

both references condition some actions upon correctly identifying the user via a fingerprint. The FINAL REJECTION suggests that the existence of selective operation based upon fingerprint identification would make obvious incorporation of the fingerprint sensor into the OK or PVV key of Darbee et al. However, the Examiner had provided no indication of any motivation for such a combination from either reference or the prior art. The existence of separate disclosure of the parts cannot make obvious their combination absent some reason to combine. The Examiner's argument is not a motivation to combine but merely the bare statement that the combination would have been obvious. In contrast, this application presents a clear motivation for the combination in the teaching of non-participatory identification. Accordingly, claims 1, 10, 12 and 29 are allowable over the combination of Merjanian and Darbee et al.

The FINAL REJECTION states at page 5, lines 3 to 12:

"In response to Applicant's argument that in the absence of express teaching of non-participatory identification taught in the present application, the combination is not obvious, it is noted that the specific limitation "non-participatory identification" is not in any of the independent claims. even assuming, arguendo, that the claims recite such a limitation, it is noted that non-participatory identification is interpreted as equivalent to the aspect of Merjanian's invention that allows for adjusting the service level at the same time the fingerprint is read (see at least 3:31-39). Alternatively stated, the process does not require the user to perform any additional step (i.e., non-participatory identification) in order to access the channels the user is allowed to access."

The Applicants are aware that the claims do not include the specific limitation "non-participatory identification." Claims 1, 10, 12 and 29 are apparatus claims and direct recitation of "non-participatory identification" can best or only occur in a method claim. However, use of the apparatus recited in claims 1,



10, 12 and 29 makes non-participatory identification inevitable according to the teaching of this application. The Applicants submit that this non-participatory identification taught in the application provides motivation for embedding the fingerprint sensor in the "middle portion of the thumb operated cross configuration." Such motivation is lacking absence this teaching of the application. Accordingly, claims 1, 10, 12 and 29 are allowable over the combination of Merjanian and Darbee et al.

The last quoted portion of the FINAL REJECTION implies that completion of fingerprint identification by placing a thumb on platen 30 "allows for adjusting the service level at the same time the fingerprint is read" and that this provides the urged non-participator identification. The Applicants believe this is incorrect. Selection of the service level based upon identification does not end the user input process. The Applicants urge that the user would need to manipulate buttons 212A to 212K of Merjanian to complete interaction with the user. Merjanian states at column 8, lines 9 to 11:

"The ergonomic reader 200 has a plurality of buttons 212 substantially the same as buttons 102."

Merjanian further states at column 7, lines 54 to 59:

"The ergonomic reader 100 may further include a plurality of buttons 102A, B, . . . N on the first surface 146 which may control, for example, power, volume up, volume down, channel up, channel down, identification select, menu up, menu down, menu select, or other features, depending on the particular application."

Accordingly, Merjanian contemplates the user will further interact with ergonomic reader 200 via buttons 212A to 212K for selection of volume, channel, menus or other features. Use of buttons 212A to 212K of Figure 7 of Merjanian would require additional use of

ergonomic reader 200 beyond entry of a thumbprint via platen 30. This application teaches placement of the fingerprint sensor in the "middle portion of the thumb operated cross configuration" means that this ordinary, expected use of the remote control device will also place the thumbprint in proper position for reading without additional user action. The combination of Merjanian and Darbee et al fails to make the ordinary, expected use of the remote control also operable to make the fingerprint identification. Accordingly, claims 1, 10, 12 and 29 are allowable over the combination of Merjanian and Darbee et al.

Claims 34, 46, 49 and 52

Claims 34, 46, 49 and 52 recite subject matter not made obvious by the combination of Merjanian and Darbee et al. Claims 34, 46, 49 and 52 recite "said control keys include an activation key operable to activate the remote control device, and said fingerprint sensor is embedded in the activation key." The FINAL REJECTION states at page 15, lines 8 to 11:

"(see at least FIG. 7; it is noted that operating any of the buttons shown inherently activates the remote controller which does not need to be turned on per se with a button which is reserved only for turning on/off the remote controller)."

This inherency of Merjanian fails to make obvious the recited limitation. While the FINAL REJECTION states that the remote control of Merjanian does not need to be turned on, these claims recite "an activation key operable to activate the remote control device." The Examiner's statement that Merjanian does not need the recited activation key does not support an inference that the recited activation key is obvious. Likewise, while Darbee et al discloses power supply 30, supervisory circuit 31 and batteries 32, it fails to disclose an activation key necessary to active the

remote control unit. The FINAL REJECTION states at: page 15, lines 13 to 17; page 16, lines 12 to 17; and page 18, lines 16 to 21:

"However, in an analogous art, Darbee teaches a remote control device with an OK, or PWR control key (see at least FIG. 1) for the purpose of selectively downloading advertising and programming data to be stored on the remote control depending upon identification of the user of the remote control or based upon some assessment of the viewing habits or preferences of the user (3:31-39)."

Darbee et al includes no teaching regarding the operation of the OK key. The FINAL REJECTION at page 7, lines 38 to 41 states that the OK key of Darbee et al is a commonly known equivalent of an enter key on any standard remote controller. This reasoning does not make either the OK key or the equivalent enter key necessary "to activate the remote control device" as recited in claims 34, 46, 49 and 52. In particular, Darbee et al includes extensive description of operation of remote control 10 without requiring operation of the OK key or an equivalent enter key. Accordingly, remote control 10 of Darbee et al must be activated without the need to press the OK key or an equivalent enter key. Accordingly, this cannot make obvious the specific limitation recited in claims 34, 46, 49 and 52. Further, Darbee et al includes no teaching regarding the operation of the PWR key. The Applicants respectfully submit that one skilled in the art would believe this PWR key operates to activate the controlled device rather than the remote control device as recited in claims 34, 46, 49 and 52. Thus the implications from the cited teachings of Darbee et al teach activation of a different apparatus than recited in these claims. Merjanian and Darbee et al fail to teach that operation of a control key actuates the remote control device as required by the limitations of claims 34, 46, 49 and 51. In contrast, this application states at page 11, line to page 12, line 1:

"In another preferred embodiment, the finger print apparatus 26 is incorporated on the remote control device 41 as an 'activate remote' key that must be pressed in order for the remote to start functioning. In this embodiment, the finger print can be read when the remote control is activated."

Embedding the fingerprint sensor in such an activate remote key ensures capture of the user's fingerprint before any controlled operation. The combination of teachings cited in the FINAL REJECTION fails to make such a requirement. Accordingly, claims 34, 46, 49 and 52 are allowable over the combination of Merjanian and Darbee et al.

Merjanian states at column 3, lines 39 to 47 (overlapping the portion cited in the FINAL REJECTION):

"The combination allows the service level to be adjusted in response to a fingerprint match to provide access to channels for which access is normally restricted, for example, so that children or house guests--whose fingerprint data are unknown to the system--can not order pay-per-view events or other services without the assistance of an authorized person--whose fingerprint data are known and configured to authorize such access."

This teaching of "channels for which access is normally restricted" implies the existence of channels for which access is not restricted that can be selected by children and house guests. Thus there are some channels that can be viewed without the verification of fingerprint required for the "normally restricted" channels. Thus the device of Merjanian can operate without detecting a fingerprint in platen 30. This contradicts the above quoted limitation of claims 34, 46, 49 and 52. The Applicants submit that the combination of the fingerprint sensor and the activation key of claims 34, 46, 49 and 52 prevents use of the remote control without producing a non-participatory identification of the user as taught

in the application. Accordingly, claims 34, 46, 49 and 52 are not made obvious by the combination of Merjanian and Darbee et al.

## **SECOND REJECTION**

Claims 55 to 58 were rejected under 35 U.S.C. 103(a) as made obvious by the combination of Merjanian U.S. Patent No. 5,920,642, Darbee et al U.S. Patent No. 6,130,726 and Catalano et al U.S. Patent No. 6,766,040.

Claims 55 to 58 each recite a sleep mode. Neither Merjanian nor Darbee et al disclose the claimed sleep mode forgetting fingerprint data or that return from sleep mode re-acquires fingerprint data. Catalano et al does teach a sleep mode. However, the events which trigger entering the sleep mode and exiting the sleep mode in Catalano et al are not the same as the events noted in claims 55 to 58.

Claims 55 to 58 recite subject matter not made obvious by the combination of Merjanian, Darbee et al and Catalano et al. Claims 55 to 58 each recite "enter a sleep mode and forget fingerprint sensor data if none of said plurality of control keys is operated for a predetermined period of time." Catalano et al states at column 17, lines 48 to 53:

"Verification is ended, as depicted by step 446, after the results of the comparison are sent to the external device 140. Thereafter, sensor 130 is returned to the sleep mode, as indicated by step 300 (FIG. 3), and device 100 draws almost no power until the next request is received from external device 140 for a fingerprint verification."

Catalano et al teaches entering the sleep mode upon acquisition of the fingerprint via sensor 130. Catalano et al does not teach any control keys on device 100. Thus Catalano et al fails to teach that activation of any of a plurality of control keys can keep device out of sleep mode of a predetermined period of time as

required by this limitation of claims 55 to 58. Accordingly, claims 55 to 58 are allowable over the combination of Merjanian, Darbee et al and Catalano et al.

Claims 55 to 58 recite further subject matter not made obvious by the combination of Merjanian, Darbee et al and Catalano et al. Claims 55 to 58 each recite "re-activate from said sleep mode upon operation of said activation key and re-acquiring fingerprint data via said fingerprint sensor." Respective base claims 34, 46, 49 and 52 require this activation key to be a part of the device including the fingerprint sensor. Catalano et al states at column 6, lines 22 to 32:

"Turning now to FIGS. 1 and 3, in normal operation device 100 remains in "sleep" mode to conserve power, as indicated by step 300 in FIG. 3. However, if at step 302 a determination is made that interface 150 has received a request from external unit 140 to receive and capture a fingerprint, then device 100 is "awakened," i.e., powered up, as indicated at step 304. Typically, external unit 140 sends a command packet to interface 150 requesting device 100 to sense and capture the fingerprint. Logic unit 110 receives and decodes the command packet and sends a signal that activates sensor 130."

Catalano et al teaches exiting the sleep mode upon a request from external unit 140. Catalano et al does not teach any control keys on device 100. Thus Catalano et al fails to teach that activation of a particular control keys causes the device to re-activate from the of sleep mode as required by this limitation of claims 55 to 58. Accordingly, claims 55 to 58 are allowable over the combination of Merjanian, Darbee et al and Catalano et al.

If the Examiner has any questions or other correspondence regarding this application, Applicants request that the Examiner contact Applicants' attorney at the below listed telephone number and address to facilitate prosecution.

Texas Instruments Incorporated  
P.O. Box 655474 M/S 3999  
Dallas, Texas 75265  
(972) 917-5290  
Fax: (972) 917-4418

Respectfully submitted,

/Robert D. Marshall, Jr./  
Robert D. Marshall, Jr.  
Reg. No. 28,527

## CLAIMS APPENDIX

1 1. A system for user recognition and customized content  
2 provisioning, the system comprising:

3 a remote control device having a plurality of control keys,  
4 the remote control device including a fingerprint sensor embedded  
5 in one of said control keys, whereby activation of said one of said  
6 control keys reads fingerprint data of a user's finger, said  
7 control keys including at least some control keys disposed in a  
8 thumb actuated cross configuration, and wherein said fingerprint  
9 sensor is integrated within a middle portion of the thumb operated  
10 cross configuration; and

11 an apparatus capable of presenting customized content to the  
12 user controllable by activation of said plurality of control keys,  
13 the customized content selected dependent upon said fingerprint  
14 data of the user's finger.

1 10. An apparatus for content provisioning comprising:

2 means for acquiring data related to a user without active user  
3 input or participation, the means for acquiring data including a  
4 remote control device having a plurality of control keys and a  
5 fingerprint sensor embedded in one of the control keys, whereby  
6 activation of said one of said control keys reads fingerprint data  
7 of a user's finger, said control keys including at least some  
8 control keys disposed in a thumb actuated cross configuration, and  
9 said fingerprint sensor is integrated within a middle portion of  
10 the thumb operated cross configuration; and

11 means for presenting customized content to the user  
12 controllable by activation of said plurality of control keys, said  
13 customized content selected in response to said fingerprint data of  
14 the user's finger.



1 12. A television system comprising:

2 a remote control device having a plurality of control keys,  
3 the remote control device including a fingerprint sensor embedded  
4 in one of said control keys, whereby activation of said one of said  
5 control keys reads fingerprint data of a user's finger, said  
6 control keys including at least some control keys disposed in a  
7 thumb actuated cross configuration, and said fingerprint sensor is  
8 integrated within a middle portion of the thumb operated cross  
9 configuration;

10 a processor communicatively coupled to the remote control  
11 device, the determining characteristics of the user based upon the  
12 fingerprint data; and

13 a display providing content to be viewed by the user, the  
14 content being customized for the user based upon the  
15 characteristics determined by the processor.

1 29. A remote control device comprising:

2 a housing;  
3 electronic circuitry disposed within the housing;  
4 a signal transmitter disposed within the housing;  
5 a plurality of control keys disposed on an outer surface of  
6 the housing, at least some of the control keys operable by hand and  
7 at least some control keys disposed in a thumb actuated cross  
8 configuration; and

9 a fingerprint sensor integrated within a middle portion of the  
10 thumb operated cross configuration control keys.

1 34. A device comprising:

2 a housing;  
3 electronic circuitry disposed within the housing;  
4 a signal transmitter disposed within the housing;  
5 a plurality of control keys disposed on an outer surface of  
6 the housing, at least some of the control keys operable by hand,

the control keys including an activation key operable to activate a remote control device; and  
a fingerprint sensor integrated within the activation key.

46. A system for user recognition and customized content provisioning, the system comprising:

a remote control device having a plurality of control keys, the remote control device including a fingerprint sensor embedded in one of said control keys, whereby activation of said one of said control keys reads fingerprint data of a user's finger, said control keys include an activation key operable to activate the remote control device, and said fingerprint sensor is embedded in the activation key; and

an apparatus capable of presenting customized content to the user controllable by activation of said plurality of control keys, the customized content selected dependent upon said fingerprint data of the user's finger.

49. An apparatus for content provisioning comprising:

means for acquiring data related to a user without active user input or participation, the means for acquiring data including a remote control device having a plurality of control keys and a fingerprint sensor embedded in one of the control keys, whereby activation of said one of said control keys reads fingerprint data of a user's finger, said control keys include an activation key operable to activate the remote control device, and said fingerprint sensor is embedded in the activation key; and

means for presenting customized content to the user controllable by activation of said plurality of control keys, said customized content selected in response to said fingerprint data of the user's finger.

1 52. A television system comprising:

2 a remote control device having a plurality of control keys,  
3 the remote control device including a fingerprint sensor embedded  
4 in one of said control keys, whereby activation of said one of said  
5 control keys reads fingerprint data of a user's finger, said  
6 control keys include an activation key operable to activate the  
7 remote control device, and said fingerprint sensor is embedded in  
8 the activation key;

9 a processor communicatively coupled to the remote control  
10 device, the determining characteristics of the user based upon the  
11 fingerprint data; and

12 a display providing content to be viewed by the user, the  
13 content being customized for the user based upon the  
14 characteristics determined by the processor.

1 55. The device of claim 34, wherein:

2 said electronic circuitry is operable to

3 enter a sleep mode and forget fingerprint sensor data if  
4 none of said plurality of control keys is operated for a  
5 predetermined period of time, and

6 re-activate from said sleep mode upon operation of said  
7 activation key and re-acquiring fingerprint data via said  
8 fingerprint sensor.

1 56. The system of claim 46, wherein:

2 said remote control device is operable to

3 enter a sleep mode and forget fingerprint sensor data if  
4 none of said plurality of control keys is operated for a  
5 predetermined period of time, and

6 re-activate from said sleep mode upon operation of said  
7 activation key and re-acquiring fingerprint data via said  
8 fingerprint sensor.

1 57. The apparatus of claim 49, wherein:  
2 said mean for acquiring data is operable to  
3 enter a sleep mode and forget fingerprint sensor data if  
4 none of said plurality of control keys is operated for a  
5 predetermined period of time, and  
6 re-activate from said sleep mode upon operation of said  
7 activation key and re-acquiring fingerprint data via said  
8 fingerprint sensor.

1 58. The television system of claim 52, wherein:  
2 said remote control device is operable to  
3 enter a sleep mode and forget fingerprint sensor data if  
4 none of said plurality of control keys is operated for a  
5 predetermined period of time, and  
6 re-activate from said sleep mode upon operation of said  
7 activation key and re-acquiring fingerprint data via said  
8 fingerprint sensor.

## **Evidence Appendix**

None

## Related Proceedings Appendix

None